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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/749,677 | 12/28/2000 | Masaki Okayasu | Q62316 | 8681 |

7590 03/20/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
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Washington, DC 20037

EXAMINER

CHEN, TIANJIE

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2652

DATE MAILED: 03/20/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/749,677

Applicant(s)

OKAYASU ET AL.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

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Non-Final Rejection

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miike (US 6,111,827) in view of Ohtsuka et al (US 5,297,127).

With regard to claim 1, Miike shows a mounting structure of a hybrid optical module in Fig.4 (a copy with added marks is attached in next page) including: a movable member (as marked) that is supported by two shafts 18 and 19, a recording medium drive apparatus shown in Fig 4 including a hybrid optical module 1 having a light emitting 38 (Fig. 4; column 13, line 14) and receiving device 32 (Fig. 4; column 14, line 31) mounted on the movable member, the hybrid optical module 1 being slid on the shafts 18 and 19 so as to perform a tracking operation on an optical recording medium (moving radially, column 6, lines 4-6), wherein a portion P of the hybrid optical module which is closer to one of the shafts 18 when the hybrid optical module is mounted on the movable member is cut out in substantially parallel with the shaft, and by an angle A which is substantially equal to an incident angle B of an optical path with respect to a tracking direction of the optical recording medium.

Miike does not show a driving coil attached to the movable member.

Ohtsuka et al shows an optical device, wherein a driving coil 13 is attached to the movable member 1 (Fig. 1, column 2, lines 26-31).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to add the coil taught by Ohtsuka et al into Miike's device. The rationale is as follows: Miike has mentioned that the movable member is moved by a sled motor (column 6, lines 8-10), but was not illustrated. Ohtsuka et al shows a moving mechanism, which is moved by a sled motor having a coil attached on the movable member. And use a coil for moving the movable member in an optical tracking system is well known and notorious in the art. One of ordinary skill in the art would have been motivated to add the coil taught by Ohtsuka et al into Miike's device, thus being able to move the movable member.

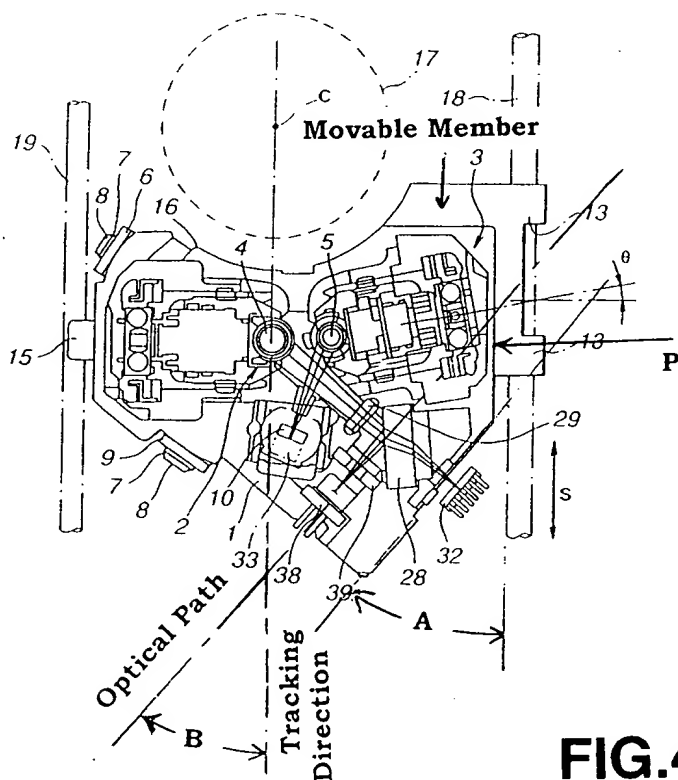


FIG.4

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With regard to claim 2, Miike further shows that a spindle motor 17 (Fig. 4, column 6, line 12) is placed to be closer to the shaft 19 in a direction of light incidence of an optical system including the hybrid optical module, and the hybrid optical module having a cut portion P which is closer to another shaft 18 is mounted with a pick-up unit shown in Fig. 7.

With regard to claim 3, Miike further shows that the angle A by which the portion of the hybrid optical module is cut out is in a range of 30° to 45° substantially.

With regard to claim 4, Miike and Ohtsuka et al shows a recording medium drive apparatus as described above including: a movable member that is supported by at least two shafts, and a polygonal hybrid optical module having a light emitting and receiving device which is mounted on the movable member, and a driving coil attached to the movable member, the hybrid optical module being slid on the shafts so as to perform a tracking operation on a recording medium, wherein a portion of the hybrid optical module which is closer to one of the shafts is cut out in substantially parallel with the shafts, and by an angle which is substantially equal to an incident angle of an optical path in a tracking direction of the recording medium.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

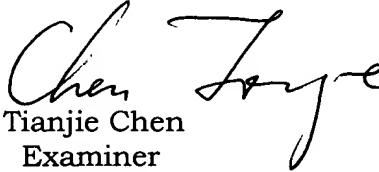
- US006339569B1 to Liu et al shows an optical data card writer.
- US004856871A to Van Sant shows a optical pickup.
- US006009062A to Nashimoto et al shows an optical pickup mounting and moving system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is (703) 305-7499. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (703) 305-9687. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-6037 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.


Tianjie Chen
Examiner
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March 6, 2003